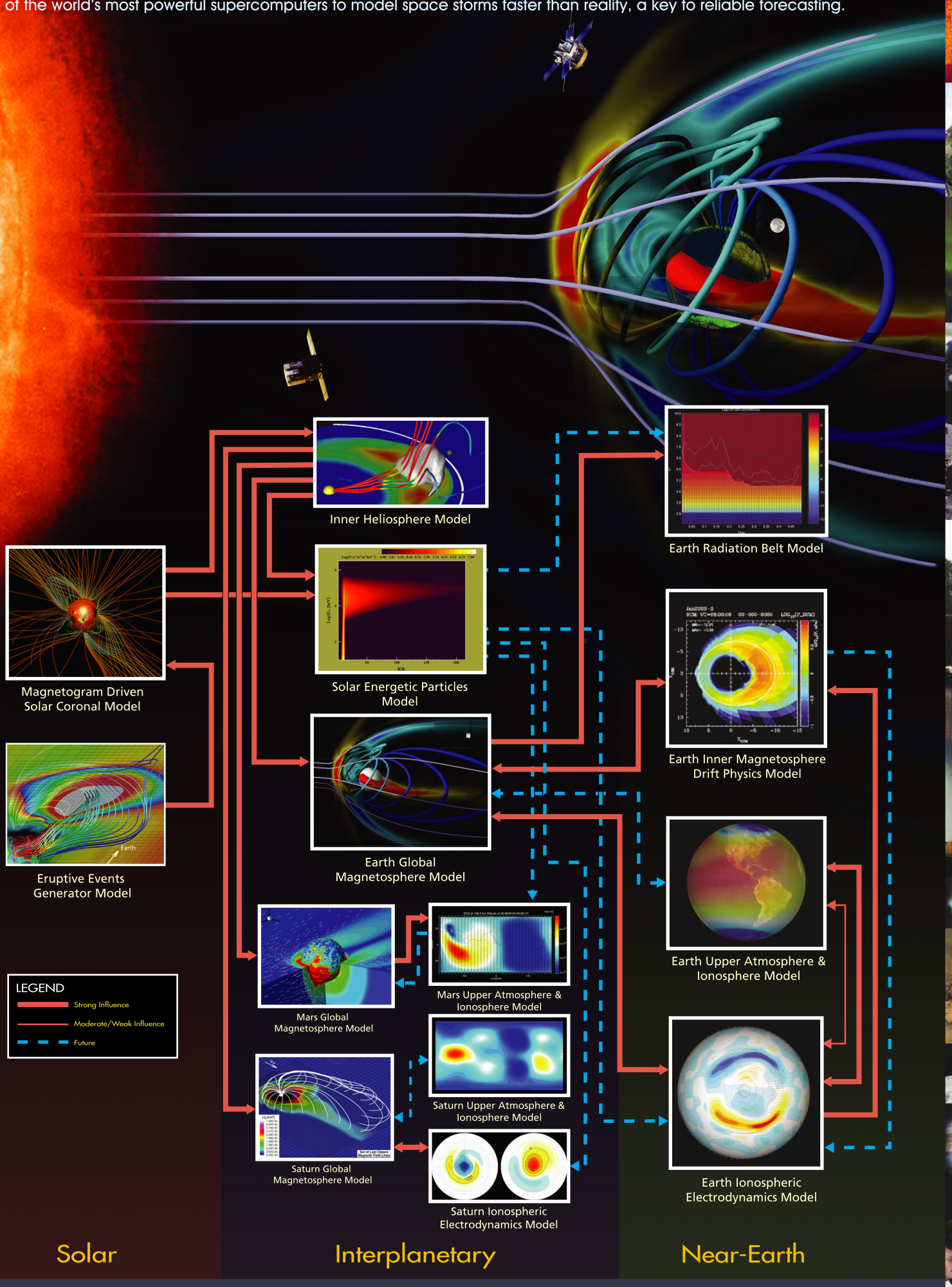
SPACE WEATHER MODELING FRAMEWORK

Caused by magnetic and electrically charged phenomena traveling from our Sun, space weather affects life on Earth and our ability to explore the solar system. Space storms have created power outages, diverted airplanes, knocked out satellites, interrupted spacecraft communications, and forced astronauts to take cover.

To study and ultimately predict space weather, scientists are building a software tool called the Space Weather Modeling Framework (SWMF). By coupling a series of computer models, the SWMF can simulate space weather phenomena over vast regions of space — from the surface of the Sun to the upper atmosphere of Earth, the Moon, Mars, and beyond. The SWMF harnesses some of the world's most powerful supercomputers to model space storms faster than reality, a key to reliable forecasting.



The Space Weather Modeling Framework (SWMF) is a software technology prototype being developed by the Computational Technologies Project, part of NASA's Earth-Sun System Technology Office.

http://ct.gsfc.nasa.gov

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